

ABSTRACT OF THE DISCLOSURE

The semiconductor device comprises a pair of impurity diffused regions formed in a silicon substrate 10, spaced from each other, and a gate electrode 26 formed above the silicon substrate 10 between the pair of impurity diffused regions 38 intervening a gate insulation film 12 therebetween. The gate electrode 26 is formed of a polycrystalline silicon film 16 formed on the gate insulation film 12, a polycrystalline silicon film 30 formed on the polycrystalline silicon film 16 and having crystal grain boundaries discontinuous to the polycrystalline silicon film 16, a metal nitride film 20 formed on the polycrystalline silicon film 30, and a metal film 22 formed on the barrier metal film 20. Whereby diffusion of the boron from the first polycrystalline silicon film 16 toward the metal nitride film 20 can be decreased. Thus, depletion of the gate electrode 26 can be suppressed.

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